

hvec.ST25
SEQUENCE LISTING

<110> FRANCE HYBRIDES

<120> Process for producing a mammal rendered resistant to an infection by an alphaherpesvirus by germinal transgenesis and mammal obtained by the employment of this process.

<130> hvec

<150> Fr02 12775

<151> 2002-10-15

<160> 4

<170> PatentIn version 3.1

<210> 1

<211> 440

<212> PRT

<213> artificial sequence

<220>

<223> Artificial protein fusing the extracellular domain of the protein HveM of the mouse and the crystallisable fragment of the human immunoglobulin G1

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Met	Glu	Pro	Leu	Pro	Gly	Trp	Gly	Ser	Ala	Pro	Trp	Ser	Gln	Ala	Pro
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Thr	Asp	Asn	Thr	Phe	Arg	Leu	Val	Pro	Cys	Val	Phe	Leu	Leu	Asn	Leu
			20					25					30		
Leu	Gln	Arg	Ile	Ser	Ala	Gln	Pro	Ser	Cys	Arg	Gln	Glu	Glu	Phe	Leu
		35					40					45			
Val	Gly	Asp	Glu	Cys	Cys	Pro	Met	Cys	Asn	Pro	Gly	Try	His	Val	Lys
	50					55					60				

Gln 65	Val	Cys	Ser	Glu	His 70	Thr	Gly	Thr	Val	Cys 75	Ala	Pro	Cys	Pro	Pro 80
Gln	Thr	Tyr	Thr	Ala 85	His	Ala	Asn	Gly	Leu 90	Ser	Lys	Cys	Leu	Pro 95	Cys
Gly	Val	Cys	Asp 100	Pro	Asp	Met	Gly	Leu 105	Leu	Thr	Trp	Gln	Glu 110	Cys	Ser
Ser	Trp	Lys 115	Asp	Thr	Val	Cys	Arg 120	Cys	Ile	Pro	Gly	Tyr 125	Phe	Cys	Glu
Asn 130	Gln	Asp	Gly	Ser	His	Cys 135	Ser	Thr	Cys	Leu	Gln 140	His	Thr	Thr	Cys
Pro 145	Pro	Gly	Gln	Arg	Val 150	Glu	Lys	Arg	Gly	Thr 155	His	Asp	Gln	Asp	Thr 160
Val	Cys	Ala	Asp	Cys 165	Leu	Thr	Gly	Thr	Phe 170	Ser	Leu	Gly	Gly	Thr 175	Gln
Glu	Glu	Cys	Leu 180	Pro	Trp	Thr	Asn	Cys 185	Ser	Ala	Phe	Gln	Gln 190	Glu	Val
Arg	Arg	Gly 195	Thr	Asn	Ser	Thr	Asp 200	Thr	Thr	Cys	Ser	Ser 205	Asp	Pro	Glu
Glu 210	Pro	Lys	Ser	Cys	Asp	Lys 215	Thr	His	Thr	Cys	Pro 220	Pro	Cys	Pro	Ala
Pro 225	Glu	Leu	Leu	Gly	Gly 230	Pro	Ser	Val	Phe	Leu 235	Phe	Pro	Pro	Lys	Pro 240
Lys	Asp	Thr	Leu	Met 245	Ile	Ser	Arg	Thr	Pro 250	Glu	Val	Thr	Cys	Val 255	Val
Val	Asp	Val	Ser 260	His	Glu	Asp	Pro	Glu 265	Val	Lys	Phe	Asn 270	Trp	Tyr	Val
Asp	Gly	Val 275	Glu	Val	His	Asn	Ala 280	Lys	Thr	Lys	Pro	Arg 285	Glu	Glu	Gln
Tyr 290	Asn	Ser	Thr	Tyr	Arg	Val 295	Val	Ser	Val	Leu	Thr 300	Val	Leu	His	Gln
Asp 305	Trp	Leu	Asn	Gly	Lys 310	Glu	Tyr	Lys	Cys	Lys 315	Val	Ser	Asn	Lys	Ala 320
Leu	Pro	Ala	Pro	Ile 325	Glu	Lys	Thr	Ile	Ser 330	Lys	Ala	Lys	Gly	Gln 335	Pro
Arg	Glu	Pro	Gln 340	Val	Tyr	Thr	Leu	Pro 345	Pro	Ser	Arg	Asp	Glu 350	Leu	Thr
Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser

	355					360					365				
Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr
	370					375					380				
Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr
	385					390					395				
Ser	Lys	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Gln	Gly	Asn	Val	Phe
	405					410					415				
Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys
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Ser	Leu	Ser	Leu	Ser	Pro	Gly	Lys								
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<210> 2

<211> 581

<212> PRT

<213> artificial sequence

$\langle 220 \rangle$

<223> Artificial protein fusing the extracellular domain (domains V-C-C) of the protein HveC of the pig and the crystallisable fragment of the human immunoglobulin G1

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Val	Gln	Val 35	Asn	Asp	Ser	Met	Tyr 40	Gly	Phe	Ile	Gly	Thr 45	Asp	Val	Val
Leu	His 50	Cys	Ser	Phe	Ala	Asn 55	Pro	Leu	Pro	Gly	Val 60	Lys	Ile	Thr	Gln
Val 65	Thr	Trp	Gln	Lys	Ala 70	Thr	Asn	Gly	Ser	Lys 75	Gln	Asn	Val	Ala	Ile 80
Tyr	Asn	Pro	Ala	Met 85	Gly	Val	Ser	Val	Leu 90	Ala	Pro	Tyr	Arg	Glu 95	Arg
Val	Glu	Phe	Leu 100	Arg	Pro	Ser	Phe	Thr 105	Asp	Gly	Thr	Ile	Arg 110	Leu	Ser
Arg	Leu	Glu 115	Leu	Glu	Asp	Glu	Gly 120	Val	Tyr	Ile	Cys	Glu 125	Phe	Ala	Thr

Phe	Pro	Ala	Gly	Asn	Arg	Glu	Ser	Gln	Leu	Asn	Leu	Thr	Val	Met	Ala
	130					135					140				
Lys	Pro	Thr	Asn	Trp	Ile	Glu	Gly	Thr	Gln	Ala	Val	Leu	Arg	Ala	Lys
145					150					155					160
Lys	Gly	Lys	Asp	Asp	Lys	Val	Leu	Val	Ala	Thr	Cys	Thr	Ser	Ala	Asn
				165					170					175	
Gly	Lys	Pro	Pro	Ser	Val	Val	Ser	Trp	Glu	Thr	His	Leu	Lys	Gly	Glu
			180					185					190		
Ala	Glu	Tyr	Gln	Glu	Ile	Arg	Asn	Pro	Asn	Gly	Thr	Val	Thr	Val	Ile
		195					200					205			
Ser	Arg	Tyr	Arg	Leu	Val	Pro	Ser	Arg	Glu	Asp	His	Arg	Gln	Ser	Leu
	210					215					220				
Ala	Cys	Ile	Val	Asn	Tyr	His	Met	Asp	Arg	Phe	Arg	Glu	Ser	Leu	Thr
225					230					235					240
Leu	Asn	Val	Gln	Tyr	Glu	Pro	Glu	Val	Thr	Ile	Glu	Gly	Phe	Asp	Gly
				245					250					255	
Asn	Trp	Tyr	Leu	Gln	Arg	Met	Asp	Val	Lys	Leu	Thr	Cys	Lys	Ala	Asp
			260					265					270		
Ala	Asn	Pro	Pro	Ala	Thr	Glu	Tyr	His	Trp	Thr	Thr	Leu	Asn	Gly	Ser
		275					280					285			
Leu	Pro	Lys	Gly	Val	Glu	Ala	Gln	Asn	Arg	Thr	Leu	Phe	Phe	Arg	Gly
	290					295					300				
Pro	Ile	Asn	Tyr	Ser	Met	Ala	Gly	Thr	Tyr	Ile	Cys	Glu	Ala	Thr	Asn
305					310					315					320
Pro	Ile	Gly	Thr	Arg	Ser	Gly	Gln	Val	Glu	Val	Asn	Ile	Thr	Glu	Phe
				325					330					335	
Pro	Tyr	Thr	Pro	Ser	Pro	Pro	Glu	His	Ala	Asp	Pro	Glu	Glu	Pro	Lys
			340					345					350		
Ser	Cys	Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Leu
		355					360					365			
Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr
	370					375					380				
Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val
385					390					395					400
Ser	His	Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val
				405					410					415	
Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Tyr	Asn	Ser

420						425						430					
Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu		
		435					440					445					
Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala		
	450					455					460						
Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro		
465					470					475					480		
Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Asp	Glu	Leu	Thr	Lys	Asn	Gln		
				485					490					495			
Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala		
			500					505					510				
Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr		
		515					520					525					
Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu		
	530					535					540						
Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser		
545					550					555					560		
Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser		
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Leu	Ser	Pro	Gly	Lys													
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<210> 3

<211> 376

<212> PRT

<213> artificial sequence

<220>

<223> Artificial protein fusing the V domain of the protein HveC of the pig and the crystallisable fragment of the porcine immunoglobulin G1

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			20					25					30		

Val	Gln	Val	Asn	Asp	Ser	Met	Tyr	Gly	Phe	Ile	Gly	Thr	Asp	Val	Val
		35					40					45			
Leu	His	Cys	Ser	Phe	Ala	Asn	Pro	Leu	Pro	Gly	Val	Lys	Ile	Thr	Gln
	50					55					60				
Val	Thr	Trp	Gln	Lys	Ala	Thr	Asn	Gly	Ser	Lys	Gln	Asn	Val	Ala	Ile
65					70					75					80
Tyr	Asn	Pro	Ala	Met	Gly	Val	Ser	Val	Leu	Ala	Pro	Tyr	Arg	Glu	Arg
				85					90					95	
Val	Glu	Phe	Leu	Arg	Pro	Ser	Phe	Thr	Asp	Gly	Thr	Ile	Arg	Leu	Ser
			100					105					110		
Arg	Leu	Glu	Leu	Glu	Asp	Glu	Gly	Val	Tyr	Ile	Cys	Glu	Phe	Ala	Thr
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	130					135					140				
Ser	Val	Gly	Ile	His	Gln	Pro	Gln	Thr	Cys	Pro	Ile	Cys	Pro	Gly	Cys
145					150					155					160
Glu	Val	Ala	Gly	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Lys	Pro	Lys	Asp
				165					170					175	
Thr	Leu	Met	Ile	Ser	Gln	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp
			180					185					190		
Val	Ser	Lys	Glu	His	Ala	Glu	Val	Gln	Phe	Ser	Trp	Tyr	Val	Asp	Gly
		195					200					205			
Val	Glu	Val	His	Thr	Ala	Glu	Thr	Arg	Pro	Lys	Glu	Glu	Gln	Phe	Asn
	210					215					220				
Ser	Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Pro	Ile	Gln	His	Gln	Asp	Trp
225					230					235					240
Leu	Lys	Gly	Lys	Glu	Phe	Lys	Cys	Lys	Val	Asn	Asn	Val	Asp	Leu	Pro
				245					250					255	
Ala	Pro	Ile	Thr	Arg	Thr	Ile	Ser	Lys	Ala	Ile	Gly	Gln	Ser	Arg	Glu
			260					265					270		
Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Pro	Ala	Glu	Glu	Leu	Ser	Arg	Ser
		275					280					285			
Lys	Val	Thr	Leu	Thr	Cys	Leu	Val	Ile	Gly	Phe	Tyr	Pro	Pro	Asp	Ile
	290					295					300				
His	Val	Glu	Trp	Lys	Ser	Asn	Gly	Gln	Pro	Glu	Pro	Glu	Asn	Thr	Tyr
305					310					315					320

Arg	Thr	Thr	Pro	Pro	Gln	Gln	Asp	Val	Asp	Gly	Thr	Phe	Phe	Leu	Tyr
				325					330					335	
Ser	Lys	Leu	Ala	Val	Asp	Lys	Ala	Arg	Trp	Asp	His	Gly	Asp	Lys	Phe
			340					345					350		
Glu	Cys	Ala	Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys
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Ser	Ile	Ser	Lys	Thr	Gln	Gly	Lys								
	370					375									

<210> 4

<211> 578

<212> PRT

<213> artificial sequence

<220>

<223> Artificial protein fusing the extracellular domain (domains V-C-C) of the protein HveC of the pig and the crystallisable fragment of the porcine immunoglobulin G1

<400> 4

Met	Ala	Arg	Met	Gly	Leu	Ala	Gly	Ala	Ala	Gly	Arg	Trp	Trp	Gly	Leu
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Ala	Leu	Gly	Leu	Thr	Ala	Phe	Phe	Leu	Pro	Gly	Ala	His	Thr	Gln	Val
			20					25					30		
Val	Gln	Val	Asn	Asp	Ser	Met	Tyr	Gly	Phe	Ile	Gly	Thr	Asp	Val	Val
		35					40					45			
Leu	His	Cys	Ser	Phe	Ala	Asn	Pro	Leu	Pro	Gly	Val	Lys	Ile	Thr	Gln
	50					55					60				
Val	Thr	Trp	Gln	Lys	Ala	Thr	Asn	Gly	Ser	Lys	Gln	Asn	Val	Ala	Ile
65					70					75					80
Tyr	Asn	Pro	Ala	Met	Gly	Val	Ser	Val	Leu	Ala	Pro	Tyr	Arg	Glu	Arg
				85					90					95	
Val	Glu	Phe	Leu	Arg	Pro	Ser	Phe	Thr	Asp	Gly	Thr	Ile	Arg	Leu	Ser
			100					105					110		
Arg	Leu	Glu	Leu	Glu	Asp	Glu	Gly	Val	Tyr	Ile	Cys	Glu	Phe	Ala	Thr
		115					120					125			
Phe	Pro	Ala	Gly	Asn	Arg	Glu	Ser	Gln	Leu	Asn	Leu	Thr	Val	Met	Ala
	130					135					140				

Lys 145	Pro	Thr	Asn	Trp	Ile 150	Glu	Gly	Thr	Gln	Ala 155	Val	Leu	Arg	Ala	Lys 160
Lys	Gly	Lys	Asp 165	Asp	Lys	Val	Leu	Val	Ala 170	Thr	Cys	Thr	Ser	Ala 175	Asn
Gly	Lys	Pro	Pro 180	Ser	Val	Val	Ser	Trp 185	Glu	Thr	His	Leu	Lys 190	Gly	Glu
Ala	Glu	Tyr 195	Gln	Glu	Ile	Arg	Asn 200	Pro	Asn	Gly	Thr	Val 205	Thr	Val	Ile
Ser	Arg 210	Tyr	Arg	Leu	Val	Pro 215	Ser	Arg	Glu	Asp	His 220	Arg	Gln	Ser	Leu
Ala 225	Cys	Ile	Val	Asn	Tyr 230	His	Met	Asp	Arg	Phe 235	Arg	Glu	Ser	Leu	Thr 240
Leu	Asn	Val	Gln	Tyr 245	Glu	Pro	Glu	Val	Thr 250	Ile	Glu	Gly	Phe	Asp 255	Gly
Asn	Trp	Tyr	Leu 260	Gln	Arg	Met	Asp 265	Val	Lys	Leu	Thr	Cys	Lys 270	Ala	Asp
Ala	Asn	Pro 275	Pro	Ala	Thr	Glu	Tyr 280	His	Trp	Thr	Thr	Leu 285	Asn	Gly	Ser
Leu 290	Pro	Lys	Gly	Val	Glu	Ala 295	Gln	Asn	Arg	Thr	Leu 300	Phe	Phe	Arg	Gly
Pro 305	Ile	Asn	Tyr	Ser	Met 310	Ala	Gly	Thr	Tyr	Ile 315	Cys	Glu	Ala	Thr	Asn 320
Pro	Ile	Gly	Thr	Arg 325	Ser	Gly	Gln	Val	Glu 330	Val	Asn	Ile	Thr	Glu 335	Phe
Pro	Tyr	Thr	Pro 340	Ser	Pro	Pro	Glu	His 345	Gly	Ser	Val	Gly	Ile 350	His	Gln
Pro	Gln	Thr 355	Cys	Pro	Ile	Cys	Pro 360	Gly	Cys	Glu	Val	Ala 365	Gly	Pro	Ser
Val	Phe 370	Ile	Phe	Pro	Pro	Lys 375	Pro	Lys	Asp	Thr	Leu 380	Met	Ile	Ser	Gln
Thr 385	Pro	Glu	Val	Thr	Cys 390	Val	Val	Val	Asp	Val 395	Ser	Lys	Glu	His	Ala 400
Glu	Val	Gln	Phe	Ser 405	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Thr 415	Ala
Glu	Thr	Arg	Pro 420	Lys	Glu	Glu	Gln	Phe 425	Asn	Ser	Thr	Tyr	Arg 430	Val	Val
Ser	Val	Leu 435	Pro	Ile	Gln	His	Gln 440	Asp	Trp	Leu	Lys	Gly 445	Lys	Glu	Phe

[illegible]